

**Implementing Necessary and Sufficient Standards for Radioactive
Waste Management at LLNL**

John M. Sims, Edward Munyak, Anthony Ladrán, Daniel Hoyt, Keith
Warwick
Lawrence Livermore National Laboratory
7000 East Avenue/P. O. Box 808
Livermore, CA 94551

Lawrence Livermore National Laboratory (LLNL) and the Department of Energy, Oakland Field Office (DOE/OAK), are participating in a pilot program to evaluate the process to develop necessary and sufficient sets of standards for contractor activities. This concept of contractor and DOE jointly and locally deciding on what constitutes the set of standards that are necessary and sufficient to perform work safely and in compliance with federal, state and local regulations, grew out of DOE's Department Standards Committee (Criteria for the Department's Standards Program, August, 1994, DOE/EH/-0416). We have chosen radioactive waste management activities as the pilot at LLNL. This pilot includes low-level radioactive waste, transuranic waste and the radioactive component of low-level and transuranic mixed wastes. Guidance for the development and implementation of the necessary and sufficient set of standards is provided in "The Department of Energy Closure Process for Necessary and Sufficient Sets of Standards," March 27, 1995 (draft).

We believe that there are near- and long-term benefits to be achieved from implementing this approach. In the near term, we hope this pilot will (1) appropriately exercise the draft closure process and supply supportive criticism to the Department Standards Committee, (2) teach us how to implement this new approach should the process be extended to other activities, (3) identify a set of

standards for radioactive waste management whose implementation will be less costly without any decrease in worker safety or protection of the public and the environment. In the long term, we hope that the closure process will set a new standard of partnering between DOE and LLNL (University of California) where standards will be set that fit the local operations, where risks and benefits will be managed based on local experience and requirements, where oversight and assessment of operations will be keyed to the areas requiring attention, and where the benefits will result in a more efficient and productive national laboratory.

As of the preparation of this summary, the pilot is in the identification phase; identifying the activities and evaluating them to determine their hazards and risks. Many components of the closure process are being implemented simultaneously, and in some instances iteratively, as we apply the process to our specific needs and operations. For example, the scope of the pilot was generally defined by the approval authorities. The convened group and the identification team provided input to the final scope after the pilot began. The composition of the convened group and the identification team has changed and will continue to change as issues and needs arise. Although DOE and LLNL management approved the pilot, the determination of the approval authorities took several meetings and a month to settle. Part of this was due to LLNL being a defense program site and the pilot being an environmental management program. Also, the closure process calls for the approval of the set of standards to be at the lowest level appropriate for effective management of the activities. Since this is not the routine, it required some adjustment. The most significant barrier initially was changing the paradigm on how standards are set within the DOE and having the team members realize their new responsibilities and authorities. One member commented that we would

need to develop a “standards/requirements identification document” to confirm that the set is necessary and sufficient. Another initial barrier was obtaining

sufficient effort from the technical and operational experts to complete the pilot on schedule. This became less of an issue as they understood the potential of the “necessary and sufficient” approach.

As we move through the pilot, we have identified three major vulnerabilities of the process: communication, credibility of the process, confirmation of the set of standards as being necessary and sufficient. Communication between the process team and the approval authorities is critical in order for them to approve the implementation of the new standards. Management must be a part of the process, having input through the convened group at every step. The closure process calls for stakeholders (interested parties) to provide their concerns, and we are to ensure that there are channels of communication. A minimal effort to listen to their concerns is insufficient given that the process will at least be perceived by stakeholders as a re-evaluation of the risk to the public and the environment within limits of regulatory compliance. Stakeholders must be confident that the process will not erode worker safety and protection of the public and the environment. This requires several interactions with the stakeholders providing them pertinent information as it is developed and listening to their concerns at each step.

The process must be credible. Procedures must be in place and implemented to provide the approval authorities a record of the process that is sufficient for approval of the set and sufficient for the management of the set upon implementation. The stakeholders must feel that their concerns were duly considered.

The confirmation of the set of standards as both necessary and sufficient is an important aspect of the credibility of the process. Also, since approval is local, the approval authorities will depend on the confirmation process to support their approval action. The criteria for the assessment, who will assess and how will the set be assessed, must be developed as early in the process as possible by the convened group in consultation with the approval authorities.

At the panel discussion our progress on these important issues will be presented.

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